

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION**

PEI-HRENG HOR,

Plaintiff,

v.

CHING-WU “PAUL” CHU,

Defendant.

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CIVIL ACTION NO. 4:08-cv-3584

MEMORANDUM AND ORDER

Pending before the Court is Defendant Ching-Wu “Paul” Chu’s Motion for Summary Judgment on the Inventorship Claims of Pei-Hreng Hor and Ruling Meng Based on Laches (Doc. No 45), Defendant’s Motion for Partial Summary Judgment on Pei-Hreng Hor’s and Ruling Meng’s Claims of Inventorship Based on Lack of Corroboration (Doc. No. 46), Defendant’s Motion to Dismiss or in the Alternative Motion for Summary Judgment Upon Intervenor Meng’s Unclean Hands Defense (Doc. No. 66), and Defendant’s Motion to Dismiss or in the Alternative Motion for Summary Judgment Upon Plaintiff Hor’s Unclean Hands Defense (Doc. No. 68).

Having considered the parties’ filings, all responses and replies thereto, and the applicable law, the Court finds that Defendant’s Motion for Summary Judgment Based on Laches should be **GRANTED** and Defendant’s Motions to Dismiss or in the Alternative for Summary Judgment Upon Intervenor Meng’s and Plaintiff Hor’s Unclean Hand Defenses should be **GRANTED**. The Court declines to reach Defendant’s remaining motion, as laches is a complete defense to claims of inventorship under 35 U.S.C. § 256.

I. BACKGROUND

This cases arises out of a dispute over rightful inventorship of U.S. Patent Nos. 7,056,866 (“the ‘866 Patent”) and 7,709,418 (“the ‘418 Patent”) (collectively “patents-in-suit”). The patents-in-suit involve superconducting compositions with transition temperatures (“ T_c ”) higher than the boiling point of liquid nitrogen (approximately 77° Kelvin).¹

Dr. Ching-Wu “Paul” Chu (“Defendant” or “Chu”) is listed as the sole inventor on both of the patents-in-suit. Dr. Pei-Herng Hor (“Plaintiff” or “Hor”) filed the present suit to correct inventorship in December 2008 pursuant to 35 U.S.C. §256, alleging that he is a joint inventor of the scientific advancements that underlie the patents-in-suit. (Doc. No. 1.) In March 2010, the Court granted a Motion to Intervene by Ruling Meng (“Intervenor” or “Meng”) who also claims joint inventorship of the patents-in-suit. (Doc. No. 25-1.)

A. Invention of and Applications for the Patents-in-Suit

The high temperature superconducting compositions that are the subject of the patents-in-suit were conceived of between November 1986 and March 1987. During this time, Chu, Hor, and Meng worked together in the physics research laboratory Chu directed at the University of Houston (“UH”) where Chu held an appointment as a Professor of Physics. In September of 1986, Chu left UH to begin service as a Program Director at the National Science Foundation (“NSF”). (Hor. 2006 Aff. at 2; Meng 2006 Aff. at 2.) During Chu’s one-year term with NSF, Chu named Hor, then a UH graduate student in the Physics Department and one of his Research

¹ Superconductivity, first discovered in 1911, is a phenomenon occurring in certain materials, characterized by zero electrical resistance and the exclusion of the interior magnetic field (known as the Meissner Effect). Electrical resistance is a measure of the degree to which a material opposes an electric current passing through it. Electrical resistance is measured in ohms. The electrical resistance of a superconductor drops abruptly to zero ohms when the material is cooled below its superconducting T_c . An electric current flowing in a loop of superconducting wire can persist indefinitely with no power source. Superconductivity of a material occurs, however, only at very low temperatures. Superconductors with a T_c higher than the boiling point of liquid nitrogen, which is approximately 77° Kelvin, are commercially valuable because liquid nitrogen can be produced cheaply and is not prone to some of the problems exhibited by the cooling agents required to achieve lower temperatures. Superconductors with a T_c above 77°K are commonly referred to as High Temperature Superconductors. (Hor 2010 Decl. at ¶ 3, Doc. No. 77; U.S. Patent 7,709, 418 at 2.).

Assistants, as the alternate Principal Investigator for his UH research group. (Hor. 2006 Aff. at 2; Hor 2010 Decl. ¶5.) In Chu's absence, Meng continued to serve Chu's research group in her capacity as an independent materials scientist, synthesizing and characterizing various compounds for the group's research. (Meng Compl. ¶ 9; Meng 2006 Aff. at 1.) During his year away, Chu returned regularly to his laboratory at UH on the weekends and stayed in close contact with the members of his research group, including Hor and Meng, calling the laboratory as often as every four hours. (Hor 2006 Aff. at 2; Meng 1993 Dep. 47:2-8.)

1. Initial Discoveries

In November 1986, Chu, Hor, and Meng reviewed an article written by J. Georg Bednorz and K. Alexander Müller, which related the discovery of relatively high temperature superconductivity using a Barium-Lanthanum-Copper-Oxygen (Ba-La-Cu-O) chemical composition. (Meng 2006 Aff. at 2; Hor 2006 Aff. at 2.) The article prompted Chu's research group to attempt to achieve a superconducting composition with an even higher T_c than that reported by Bednorz and Müller. (*Id.*) The Bednorz and Müller article indicated that their superconducting sample was prepared according to a nominal 5:5:5 ratio of Barium to Lanthanum to Copper. (Hor 2010 Decl. ¶ 8.) Using a solid state reaction protocol, the group at UH synthesized samples and performed experiments which resulted in observed superconductivity greater than 40°K T_c . (Hor 2006 Aff. at 3.) Meng alleges that she advised Chu that the solid state reaction method, rather than the wet chemistry method, should be used to repeat Bednorz and Müller's results. (Meng 2010 Dep. 42:21-43:14; Meng 2006 Aff. at 2.) Chu, however, denies that it was Meng's idea to use the solid state reaction method. He claims that Meng was convinced by the conclusion of the Bednorz and Müller article that the solid state

reaction method would not work, but that Chu felt the group had nothing to lose by trying the technique, and so instructed Meng to proceed with it first. (Chu Dep. 399:13-400:23.)

Chu reported the results of the group's successful experiments at an early December 1986 meeting of the Materials Research Society. At the meeting, Chu discussed his group's work with Dr. M.K. Wu ("Wu"), his former graduate student and then Assistant Professor at the University of Alabama, Huntsville. (Hor 2006 Aff. at 3.) According to Hor and Meng, during these conversations, Chu asked Wu to begin experimenting with a Strontium (Sr) substitution for Barium in Bednorz and Müller's Ba-La-Cu-O system. (Hor 2006 Aff. at 3; Meng 2006 Aff. at 2.) Chu's UH research group also continued to manipulate the chemical composition of their samples in an effort to create so-called "chemical pressure" to mimic physical pressure, thereby raising the T_c . (Hor 2010 Decl. ¶ 10.) Through Wu's experiments, Chu's research group soon discovered that a Strontium substitution for Barium did indeed increase the system's T_c to about 42°K.

Aside from the dispute over the initial decision to use the solid state reaction method, the parties more or less agree about the events surrounding these foundational experiments. The conception of the chemical compositions that ultimately achieved superconductivity at a T_c higher than 77°K, however, is at the heart of the dispute in this case. Indeed, several subsequent advancements involving elemental substitutions and the identification of the compounds' chemical structure are hotly contested. The Court will attempt to summarize the parties' conflicting claims regarding these discoveries.

2. Invention of the Patents-in-Suit

In late December 1986 or early January 1987, Wu brought a La-Sr-Cu-O compound sample to UH for magnetic testing. (Meng 2006 Aff. at 2.) During Wu's visit, Hor, Meng, and

Li Gao, a UH graduate student, had a discussion with Wu and one of his graduate students in Hor's UH office. (Meng 2006 Aff. at 2; Hor 2006 Aff. at 3; Hor Dep. 50:2-53:5.) According to Hor, the scientists discussed the direction the UH group's research should go after an attempted substitution of Calcium for Strontium actually decreased the compound's T_c . (*Id.*; Hor 2010 Decl. ¶ 11.) Hor claims that, during the meeting, he took out a periodic table in an attempt to identify new substitutions that could be made to the Ba-La-Cu-O system in order to increase its T_c . (*Id.*) At that point, Hor alleges, he conceived of the idea to replace the element Lanthanum with the element Yttrium (Y). (*Id.*) Meng claims that, during this same meeting, she conceived of and suggested replacing Lanthanum with Lutetium (Lu). (Meng 2010 Dep. 103:15-104:5; Meng 2006 Aff. at 3.)

Hor's claim to conception of the Yttrium substitution is significant because the group's subsequent substitution of Yttrium for Lanthanum resulted in the creation of the Yttrium-Barium-Copper-Oxygen ("Y-Ba-Cu-O" or "Y-B-C-O") compound that first exhibited superconductivity above 77°K. (Hor 2010 Decl. ¶ 12; Meng Dep. 101-102; 116; 385-389.) Hor claims that, immediately after the discussion at UH about the Yttrium substitution, Meng ordered the element for the research group to begin conducting the substitution experiments. (Hor 2006 Aff. at 3.) Meng recalls that, because UH was not in session due to its winter break, she did not place the order until January 12, 1987. (Meng 2010 Dep. 111-114, 385-386.) Hor claims that he asked Wu also to begin working on the Yttrium substitution. (Hor 2010 Decl. ¶ 12.) Additionally, Meng allegedly suggested to Wu that he obtain Yttrium from NASA in Huntsville, Alabama, and begin working on the substitution immediately because Meng would be unable to get the element to UH for two weeks. (Meng 2010 Dep. 387:13-388:15; Meng 2006 Aff. at 3.)

After the meeting, Hor alleges that he asked Meng to record formulas for conducting the Yttrium substitution experiments, which she did on about January 13, 1987. (Hor 2010 Decl. ¶ 13.)

Chu does not dispute that a conversation took place at UH in late December or early January between members of his research group and Wu, or that the Yttrium substitution concept was discussed at that meeting. Chu has long maintained, however, that his colleagues merely communicated *Chu's* Yttrium substitution concept to Wu. Chu allegedly conceived of the idea in mid-December, and by the 26th of that month, he concluded that Yttrium and Lutetium would indeed create high temperature superconductors. (Chu Dep. 150:6-18.) Chu alleges that, prior to Hor and Meng's meeting with Wu at UH, Chu had a phone conversation with Meng in which he described to her his idea for the Yttrium substitution. Chu has also testified that it was he who instructed Meng to order the Yttrium for the UH laboratory. (Chu Dep. 150:19-151:5.)

On January 12, 1987, Chu filed the first patent application related to the Y-B-C-O superconductor (U.S. Patent Application No. 07/002,089, now abandoned). In addition to the Y-B-C-O concept, the application also described the substitution of Lanthanum and Lutetium for Yttrium. On January 26, 1987, Chu filed a continuation-in-part application (U.S. Patent Application No. 07/006,991, now abandoned), which, according to Hor, did not include significant changes to the basic inventions described in the January 12, 1987 application.

On January 29, 1987, Wu called Chu claiming that he had observed superconductivity above 77°K in a compound in which he had substituted Yttrium for Lanthanum. (Hor. 2010 Decl. ¶ 17; Meng 2006 Aff. at 3.) Chu asked Wu to bring the sample to UH for magnetic measurements to confirm the results. (Meng 2006 Aff. at 3.) Following the phone call, Hor claims that Chu asked him to write down the formulas that Hor discussed with Wu during the

December 1986 meeting at UH. (Hor 2010 Decl. ¶ 17.) These formulas included, Hor alleges, a Y-B-C-O compound using a nominal 2-1-4 formula (“2-1-4 Y-B-C-O”). (*Id.*)²

On about January 29 or 30, 1987, Wu brought a 2-1-4 Y-B-C-O sample to UH in which he had earlier observed superconductivity above 77°K. (Hor 2010 Decl ¶ 18.) The testing at UH confirmed that the sample was genuinely superconducting with a reproducible 77°K T_c . The discovery of superconductivity above 77°K in the 2-1-4 Y-B-C-O sample prompted Chu’s research group to focus on studying the compound’s structure and properties. Specifically, the group wanted to determine which stage of the multi-phase 2-1-4 Y-B-C-O sample actually contributed to the system’s superconducting properties. (Meng 2006 Aff. at 3.)

Hor claims that Chu, Meng, and Hor worked together to successfully separate out high purity Y-B-C-O samples exhibiting superconductivity at a T_c of 90°K. (Hor 2010 Decl. ¶ 21.) Meng, on the other hand, alleges that she independently performed the analysis to separate the black and green crystals from the mixed green phase by studying a group of Y-B-C-O samples of varying compositions. (Meng Resp. to Chu Interrogs. at 7.) Meng claims that, through her experiments, she concluded that the black phase was the superconducting portion. (*Id.*) As a result, she argues that her experiments contributed to the conception of the high temperature Y-B-C-O formula and structure identified in the ‘866 patent, which had a Yttrium-Barium-Copper ratio of 1:2:3. The parties often refer to this as the “123-phase.” Chu, however, argues that it was actually Drs. Hazen and Mao of Washington’s Geophysical Laboratory who first identified the superconducting black phase and the insulating green phase, as well as the critical 1-2-3

² In addition to the Yttrium substitution formulas Hor recorded, he alleges that he also recorded formula for a compound in which Scandium (Sc) was included. Chu subsequently filed a continuation-in-part application on February 6, 1987 in which added the elemental substitution of Scandium. Chu alleges that, although included in the February 6, 1987 application, the Scandium substitution is not claimed in either the ‘866 or the ‘418 Patent.

formula when they were conducting tests on samples at Chu's request. (Def.'s Mot. for Summ. J. at 17.)

Hor contends that he continued to experiment in order to determine why the Y-B-C-O compound exhibited superconductivity at such a high T_c . He claims that he wanted to study the pair-breaking effect, a phenomenon in which the T_c of a compound degrades in the presence of magnetic elements. (Hor 2010 Decl. ¶ 23.) As part of these experiments, on March 11 or 12, 1987, Hor alleges that he asked Meng to completely replace Yttrium in the Y-B-C-O 123-phase with the magnetic rare earth element Gadolinium (Gd). (*Id.*) To Hor's alleged surprise, he did not observe degradation of the T_c . (Hor. 2006 Aff. at 4.) The negative result of the magnetic pair-breaking effect, Hor contends, prompted him to conceive of the idea to substitute other magnetic ions into the 123-phase to produce new high temperature superconductors. (Hor 2010 Decl. 23.) Hor allegedly asked Meng to perform a complete substitution of Yttrium with different series of magnetic rare earth elements, and several new superconductors were discovered. (Hor 2010 Decl. ¶ 24.) Indeed, Hor claims that he conceived of all of the substitutions of the rare earth elements Neodymium, Samarium, Europium, Gadolinium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium and Lutetium, which are claimed in the patents-in-suit. (Hor Compl. ¶ 62.)

Meng, on the other hand, alleges that she suggested experimenting with all of the claimed rare earth elements except Gadolinium, which she agrees Hor proposed. (Meng 2010 Dep. 390:4-9.) Additionally, Meng claims that she independently developed the optimal processing conditions for the individual rare earth compounds and successfully synthesized the whole series of rare earth compounds using those parameters. (Meng Compl. ¶ 12.) She allegedly used differential thermal analysis for each of the different rare earth compounds to determine

decomposition temperature, reaction temperature, and melting temperature by observing the material's weight change as a function of temperature. These experiments allegedly resulted in her observation that the rare earth compounds formed at a wide variety of temperatures (800-1000°C). (Meng Resp. to Chu Interrogs. at 8.)

Chu, for his part, claims that it was he who asked Meng to order rare earth oxides in January, long before Hor allegedly conceived of the idea to perform rare earth element substitutions. Chu also contends that he had already been conducting partial rare earth element substitution experiments beginning in late February before Hor allegedly asked Meg to undertake the experiments.

The rare earth element substitutions used to produce high temperature superconductors appeared in the continuation-in-part application Chu filed on March 26, 1987 (U.S. Patent Application No. 07/032,041). In this application, Chu also revised the composition ranges included in the previous Y-B-C-O applications to reflect the 123-phase discovery. This was the final application related to what ultimately issued as the '866 Patent. Another closely related patent application was filed on January 23, 1989, which resulted in the issuance of the '418 Patent.³

B. Post-Invention Events

In 1987, Chu submitted two papers that were published the same year based on aspects of the superconductor discoveries underlying the patents-in-suit. Both Hor and Meng admit to, at the time, reviewing every paper prepared by Chu. (Hor Dep. 92:4-93:11; Meng Dep. 205:17-206:20.) The two papers published in 1987 reference the filing of Chu's patent application

³ Meng alleges in her Complaint that the Wu Interference, discussed *infra*, resulted in the creation of this later-filed application.

describing the Y-B-C-O superconductor as “C.W. Chu, U.S. Patent Application (12 January 1987).” (Doc. No. 48-8.)

At some time in 1987 or 1988, Hor, Meng, and Chu met with one of UH’s patent attorneys, Charles Cox, to discuss the scientists’ respective contributions to the superconductor discoveries, apparently in relation to the filing of patent applications. (Hor 2006 Aff. at 6.) At the meeting, Hor claims that Cox asked the group, “Who was the first person to propose the Y-substitution?”⁴ (*Id.*) Chu allegedly responded, pointing to Meng, “Ruling, do you remember that I called you and told you to do the Y-Substitution?” (*Id.*) Hor claims that both he and Meng replied that they could not remember who first proposed the Y-Substitution. (*Id.*) Chu then allegedly suggested that Hor and Meng should also be included as inventors on the patent applications. (*Id.*) In response, Cox stated, “Not everyone can be an inventor. A pair of hands cannot be considered an inventor.” (*Id.*) According to Hor, he was disturbed by Cox’s comment and so he stood up and walked out of the room. (*Id.*) Hor claims that Chu then followed him outside, apologized, and said, “I am sorry. This lawyer does not know anything about our group. I will go back to tell him and straighten things out.” (*Id.*) Following the meeting, neither Hor nor Meng followed up with Chu or any UH official regarding their respective inventorship statuses on either of the patents-in-suit. (Hor Dep. 114:15-115:5; Meng Dep. 298:21-24; Meng 2006 Aff at 5.) Both Hor and Meng have testified that no one ever told them they would be included as inventors on either of the patents-in-suit. (Hor Dep. 114:15-115:5; Meng Dep. 582:8-18.)

Both of the applications for the patents-in-suit assigned any resulting patents to UH. In December of 1988, DuPont paid UH a sum of money for the future licensing rights to the inventions underlying the ‘866 Patent. (Chu Dep. 25:9-26:6.) Pursuant to an agreement between

⁴ “Y-substitution” refers to the Yttrium substitution.

Chu and UH, as inventor, Chu was to receive 50% of the net income derived from the technology, which amounted to approximately \$680,000 in the case of the DuPont license. (Doc. No. 78-9.) In a letter dated December 22, 1988, UH's General Counsel informed UH's President that Chu intended to "pay some of his colleagues a percentage share of his share of the initial Du Pont proceeds." (*Id.*) An appendix attached to the letter indicates that Chu kept approximately \$240,000 for himself and distributed the remainder of his share among twelve different colleagues, including Hor, Meng, and Wu, who all received \$137,000. (*Id.*)

Although Cox was retained by UH, Chu executed a Declaration and Power of Attorney authorizing Cox to represent him during the prosecution of the patents-in-suit. (Doc. Nos. 84-5 & 84-6.) In approximately 1990, the University of Alabama initiated an interference proceeding on behalf of Chu's former student, Wu, ("Wu Interference") to contest priority of invention and inventorship of the patents-in-suit. In essence, Wu and one of his graduate students claimed that they had first independently discovered the 123 Y-B-C-O superconductor.

During the Wu Interference in 1990, at Cox's request, Meng executed a declaration describing certain events related to the development of the high temperature superconductors. Meng's declaration affirmed that Chu was the person who conceived of the critical Yttrium substitution. Specifically, Meng stated that "[d]uring a phone call in about mid-December 1986, C.W. Chu described to me his belief that the substitution of Y for La in a composition La-Ba-Cu-O would produce a composition of Y-Ba-Cu-O which superconducts at a T_c greater than that of a La-Ba-Cu-O." (Meng 1990 Decl. ¶ 2.) Meng's declaration also stated that Chu's concept was described to Wu at the late December 1986 meeting at UH. (*Id.* at ¶ 3.) In a 1993 declaration, also prepared for the Wu Interference, Meng stated that she attempted to replicate Bednorz and Müller's results using the solid state reaction technique "as directed by Dr. Chu." (Meng 1993

Decl. ¶ 4.) Additionally, Meng repeated her 1990 affirmation that Chu conveyed his conception for the Yttrium and Lutetium substitutions to her via telephone in mid-December 1986. (*Id.* at ¶ 9.)

Meng also gave deposition testimony in 1993 during the Wu Interference in which she testified that Chu conceived of the Yttrium substitution as well as the substitutions of Lutetium, Erbium, and other rare earth elements with a smaller atomic ratio than Lanthanum. (Meng 1993 Dep. 25:21-26:9.) In response to whether she had knowledge of whether anyone at UH ever prepared a patent application covering the discoveries she described in her declaration, Meng also stated, “I remember I had saw (sic) one patent application, but I’m not sure was end the 86 (sic), but I couldn’t remember exactly.” (Meng 1993 Dep. 88:13-89:15.) Meng also submitted a declaration in the 1989 *Qadri v. Chu* Interference in which she stated, “I have reviewed and am familiar with the contents of United States Application Serial No. 32,041 filed March 26, 1987 by C.W. Chu (hereafter the “Chu application).” (Meng 1989 Decl. ¶ 5.) The declaration also refers to her replication of Examples XIII and XIV listed in the body of the same patent application. The cover page and the first page of the March 26, 1987 patent application identify Chu as the sole inventor.

In connection with Meng’s participation in the interference proceedings, on November 11, 1991, Cox sent Meng a five-page fax containing the abstracts of two patent applications that ultimately led to the patents-in-suit. (Doc. No. 71-1.) The fax also contained the abstracts of two other patent applications, one of which listed Hor and Meng as co-inventors along with Chu. The abstracts of the applications that led to the patents-in-suit, however, listed Chu as the sole inventor. (*Id.*)

In 1990, Hor submitted a declaration as part of the Wu Interference in which he recounted the conception of the Yttrium substitution in a manner consistent with Chu's version of the events. (Hor 1990 Decl., Doc. No. 49-2.) Specifically, Hor stated that, in a meeting at UH in late December 1987 in which Wu was in attendance, he "discussed the concept that the substitution of Y for La in a composition of La-Ba-Cu-O would produce a composition which superconducts at a T_c temperature greater than that of a La-Ba-Cu-O composition. Ru-Ling and I initiated the discussion of this concept with M.K. Wu." (*Id.* at ¶ 2.) Hor's declaration does not state that Hor was the source of the idea, only that he and Meng discussed it with Wu. (*Id.*) In his 2009 deposition, Hor admitted that he understood as of December 1990 that the Wu Interference resulted from the University of Alabama's challenge to the patent application UH filed. (Hor Dep. 58:10-59:11.) In addition to the aforementioned 1987 or 1988 meeting with Cox, Hor also met with Cox and John Warren, Vice Chancellor for Intellectual Property at UH, during the Wu Interference. Hor knew from these meetings that UH had filed patent applications on the high temperature superconductors on which he worked. (Hor. 2006 Aff. at 6-7.)

In 1999, Chu ultimately prevailed in the Wu Interference before the USPTO Board of Patent Appeals and Interferences, which awarded him priority of the patent application. The University of Alabama appealed that decision to federal district court. The suit was dismissed in 2000.

In January of 2006, nearly twenty years after the filing of the first patent application, Hor and Meng approached UH officials to inquire about inventorship of the patents-in-suit. Meng allegedly came to Hor's office with a heavy conscience, disclosing to Hor that she had lied about the conception of the Yttrium substitution during the Wu Interference. During that meeting, Meng claims that Hor asked her, "[D]o you know we are also inventors (sic)?" (Meng 2006 Aff.

at 5.) Meng allegedly responded, “I think we should but I do not know, I never asked.” (*Id.*) Hor supposedly suggested that they find out. (*Id.*)

Plaintiff and Meng allege that, during a meeting in January 2006 with John Warren, they learned for the first time that they were not included as inventors on the applications for the patents-in-suit. On February 1, 2006, while both patents-in-suit were still pending before the PTO, Plaintiff and Meng met with UH outside counsel and other UH officials to discuss their claims to inventorship.

As a result, on February 21, 2006, counsel for UH and Chu filed an Information Disclosure Statement (“IDS”) with the PTO, which included copies of letters from UH’s outside counsel to Hor and Meng concerning their inventorship claims. The PTO subsequently granted Defendant’s Petition to Suspend the Rules, which postponed the issuance of the ‘866 patent for a period of one month while UH investigated Plaintiff and Meng’s claims.

On March 14, 2006, during another meeting regarding their inventorship claims, Plaintiff and Meng presented affidavits to UH officials. The affidavits described each scientist’s alleged contributions to the development of the inventions underlying the patents-in-suit. Meng’s 2006 affidavit disavowed her Wu Interference testimony that Chu told her of the Yttrium substitution idea, but swore that the remainder of her deposition testimony was true. (Meng 2006 Aff. at 5.) In Meng’s 2010 deposition, however, she also recanted her Wu Interference testimony that she worked under Chu’s direction in performing her experiments, thereby contradicting her 2006 affidavit statement that the remainder of her Wu Interference testimony was true. (Meng 2010 Dep. 227:1-229:6.)

II. LEGAL STANDARD FOR SUMMARY JUDGMENT

A motion for summary judgment under Federal Rule of Civil Procedure 56 requires the Court to determine whether the moving party is entitled to judgment as a matter of law based on the evidence thus far presented. *See* FED. R. CIV. P. 56(c). Summary judgment is proper “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.” *Kee v. City of Rowlett*, 247 F.3d 206, 210 (5th Cir. 2001) (quotations omitted).

A genuine issue of material fact exists if a reasonable jury could enter a verdict for the non-moving party. *Crawford v. Formosa Plastics Corp.*, 234 F.3d 899, 902 (5th Cir. 2000). This Court must view all evidence in the light most favorable to the non-moving party and draw all reasonable inferences in that party’s favor. *Id.* Hearsay, conclusory allegations, unsubstantiated assertions, and unsupported speculation are not competent summary judgment evidence. FED. R. CIV. P. 56(e)(1); *see also Little v. Liquid Air Corp.*, 37 F.3d 1069, 1075 (5th Cir. 1994) (noting that a non-movant’s burden is “not satisfied with ‘some metaphysical doubt as to the material facts’” (citing *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986))). Indeed, to survive a motion for summary judgment that is properly made and supported, the opposing party’s response cannot rely merely on allegations or denials in the pleadings, but must point to specific facts showing a genuine issue for trial. *See* FED. R. CIV. P. 56(e)(2).

III. LEGAL STANDARD FOR LACHES

Chu moves for summary judgment on Hor and Meng’s claims of joint inventorship, arguing that they are precluded by the doctrine of laches. Indeed, “[l]aches is an equitable defense that may bar an inventorship claim.” *Serdarevic v. Advanced Med Optics, Inc.*, 532 F.3d

1352, 1358 (Fed. Cir. 2008). Its application “is committed to the sound discretion of the district court.” *Id.* A court must look at all of the particular facts and circumstances of each case and weigh the equities of the parties. *A.C. Aukerman Co. v. R.L. Chaides Const. Co.*, 960 F.2d 1020, 1032 (Fed. Cir. 1992) (*en banc*). In general, to properly invoke a laches defense, a defendant bears the burden of proving two factors: 1) the plaintiff delayed in filing suit for an unreasonable and inexcusable length of time from the time the plaintiff knew or reasonably should have know of its claim against the defendant, and 2) the delay operated to the prejudice or injury of the defendant. *Id.* “Both of these factual premises must be met, predicate to the weighing of the facts of delay and prejudice to determine whether justice requires that the claim be barred.” *Advanced Cardiovascular Sys., Inc. v. SciMed Life Sys. Inc.*, 988 F.2d 1157, 1161 (Fed. Cir. 1993). As the defendant, Chu must establish the laches defense by a preponderance of the evidence. *Aukerman*, 960 F.2d at 1045.

When applying laches in order to bar a claim, “the period of delay is measured from when the claimant had actual notice of the claim or would have reasonably been expected to inquire about the subject matter.” *Advanced Cardiovascular Sys.*, 988 F.2d at 1161. Indeed, “the plaintiff is chargeable with such knowledge as he might have obtained upon inquiry, provided the facts already known by him were such as to put upon a man of ordinary intelligence the duty of inquiry.” *Id.* at 1162.

A delay of more than six years after the omitted inventor knew or should have known of the claim will produce a rebuttable presumption of laches. *Id.* at 1163. Once the presumption of laches attaches, a party can remain “utterly mute” on the issue of prejudice and nonetheless prevail. *Serdarevic*, 532 F.3d at 1358. Certainly, “[w]here the presumption applies, the two facts of unreasonable delay and material prejudice ‘*must* be inferred, absent rebuttal evidence.’”

Moore v. Broadcom Corp., No. C06-05647 MJJ, 2008 WL 425932, at *3 (N.D. Cal. Feb. 14, 2008) (quoting *Aukerman*, 960 F.2d at 1037). The plaintiff may “rebut the presumption of laches by offering evidence to show an excuse for the delay or that the delay was reasonable, or by offering evidence sufficient to place the matters of evidentiary prejudice genuinely at issue.” *Serdarevic*, 532 F.3d at 1359-60 (quoting *Aukerman*, 960 F.2d at 1038) (quotations omitted).

With regard to the law of laches, the parties disagree about the time from which the period of delay may properly be measured. Chu argues that the period begins once the plaintiff knew or should have known of the claim to inventorship, regardless of whether the patent had already issued. On the other hand, Hor and Meng, analogizing from the patent infringement context, argue that the period of delay cannot begin prior to the issuance of the patent.

Hor and Meng are correct that, in infringement actions, “the period does not begin prior to the issuance of the patent.” *Aukerman*, 960 F.2d at 1032. The Federal Circuit, however, has never had an occasion to pass on the question in the inventorship context and therefore “has not . . . explicitly ruled on whether the period of delay may begin prior to the issuance of a patent.” *Moore*, 2008 WL 425932, at *4.

Indeed, the Federal Circuit cases involving laches in the inventorship context have not concerned plaintiffs who allegedly knew or should have known of their omission as inventors prior to the issuance of the patent. *See, e.g., Advanced Cardiovascular Sys.*, 988 F.2d 1157; *Serdaveric*, 532 F.3d 1352. Although no precedent binds this Court, there is persuasive authority addressing the question presented. At least two district courts have found that the period of delay may begin prior to issuance of the patent. In so holding, a Northern District of California court explained:

[T]he [Federal] Circuit, in *Advanced Cardiovascular Systems*, clearly held that unlike infringement cases, the claimant’s knowledge, rather than the date of the

issuance of the patent, controls for establishing the period of delay. In that case, however, the period of delay at issue occurred after the issuance of the patent.

Moore, 2008 WL 425932, at *4. In *Moore*, the alleged joint inventor filed a complaint alleging joint inventorship and seeking correction pursuant to 35 U.S.C. § 256 in 2006. The relevant patent application was filed in 1997 and the patent issued in 2001. Although Moore filed his suit fewer than six years after the patent's issuance, the court found that Moore knew the provisional patent application was filed in 1997 and that he was not listed as an inventor. *Id.* at *5. Accordingly, the court applied the six-year laches presumption despite the fact that the relevant period of delay began four years *before* the patent issued. After applying the presumption, which the putative inventor could not rebut, the court granted summary judgment for the defendant.

Similarly, in *Frugoli v. Fournies*, a District of Arizona court held that the period of delay began prior to the issuance of the relevant patents. 74 U.S.P.Q.2d 1716 (D. Ariz. Aug. 25, 2004). Frugoli, the alleged joint inventor of the patents, filed suit to correct inventorship in 2002, only two years after the PTO granted the later-issued patent. Notwithstanding this short delay between the patent issuance and Frugoli's lawsuit, the court found that, although Frugoli did not have actual knowledge of the patents until 2002, he should have known of his rights as early as 1995. *Id.* at 1722. Thus, applying the known or should have known standard articulated in *Advanced Cardiovascular Systems*, the court found that the laches period of delay began in 1995 when Frugoli "reasonably should have known, that Defendants had filed an application for a patent . . . and failed to name him." *Id.* at 1720-1722.

Hor attempts to counter this strong support for Chu's position by citing to *Studio & Partners v. KI*, a case from the Eastern District of Wisconsin. No. 06-C-628, 2007 WL 3342597 (E.D. Wis. Nov. 7, 2007). In *Studio & Partners*, the court held in a footnote that "[t]he Federal Circuit views the accrual of the inventorship claim . . . at the time the putative inventor . . . learns

that a patent has been issued.” *Id.* at *5 n.7. Accordingly, the court found that, because the patent did not issue until 2003, there was no basis for a laches defense.⁵ There are several issues with the court’s conclusion that render it of limited persuasive value. First, there are very few facts and little analysis related to the laches question. Indeed, it is not even possible to ascertain the date on which the alleged joint inventor knew or should have known about the relevant patents and his omission from them, in order to determine whether the facts in that case presented the same issue now before the Court. Second, the court cites *Advanced Cardiovascular Systems* to support its characterization of the Federal Circuit’s view of an inventorship claim. The section it cites, however, holds only that, “in the absence of proof that [the alleged inventor] knew or should have known that the patent had issued and that he was omitted as a joint inventor” the district court erred in measuring the period of delay from the date of the issuance of the patent. 988 F.2d at 1162. Indeed, the court addressed the date of the issuance of the patent in order to reject the defendant’s argument that the alleged joint inventor should be charged with *constructive notice* of the patent and his lack of inventorship status as of that date. The Federal Circuit believed it more prudent to measure the period of delay from the time the alleged inventor actually knew or should have known of the patent and the fact that he was omitted as a joint inventor. The court explained that this rule ensured that an alleged inventor would not be barred from remedy before he reasonably could have known of his claim. *Id.* at 1162. In short, the court in *Advanced Cardiovascular Systems* emphasized, without qualification, the known or should have known standard for measuring the period of delay

⁵ Although the year the plaintiff filed the suit to correct inventorship is not specified, the court’s Decision and Order is dated November 7, 2007, and, therefore, only four years had elapsed between the patent issuance and the resolution of the dispositive motions in the case. Thus, the plaintiff must have filed the lawsuit within six years of the patent’s 2003 issuance.

without stating an opinion as to whether an inventorship claim may accrue before the issuance of the patent.

Certainly, the central question is the proper interpretation of the word “claim” in the context of the Federal Circuit’s laches case law. The laches period of delay begins when the alleged inventor “had actual notice of the *claim* or would have reasonably been expected to inquire about the subject matter.” (emphasis added). The existing precedent leaves open the question of whether “claim” should be limited to a cause of action in federal court under 35 U.S.C. § 256. Indeed, the judicial power to resolve an inventorship contest under 35 U.S.C. § 256 is limited to *issued* patents. *See Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1356 n.1 (Fed. Cir. 2004) (“[S]ection 256 creates a cause of action in the district courts only to modify inventorship on issued patents.”) Thus, if “claim” were defined to encompass only a lawsuit under 35 U.S.C. § 256, the laches period arguably could not begin until the patent issued. There are, however, means available to remedy an alleged joint inventor’s omission from a *pending* patent. Indeed, the *Moore* court noted:

While not discussed in *Advanced Cardiovascular Systems*, pursuant to 35 U.S.C. § 116, correction of inventorship may be accomplished prior to the issuance of a patent by application to the commissioner. *See* 35 U.S.C. § 116; 37 C.F.R. § 1.48. In addition, an action to correct inventorship while the patent application is still pending, under 35 U.S.C. § 116, includes the requirement that such amendment must be diligently made. *See* 37 C.F.R. § 1.48; *Stark v. Advanced Magnetic, Inc.*, 29 F.3d 1570, 1574 (Fed. Cir. 1994). The requirement of diligence supports a finding that delay is discouraged, and laches may apply, even at these early stages. Thus, the rationale of *Advanced Cardiovascular Systems*, that laches may apply at any time that inventorship may be remedied but should not apply before the omitted inventor has learned of the claim, applies in equal force to the time during which a patent application is pending, but before it is issued.

2008 WL 425932 at *4.

The Court also observes that, in addition to petitioning to correct inventorship pursuant to 35 U.S.C. §116, an alleged joint inventor may also file a competing patent application and seek

to secure inventorship through an interference proceeding. *Display Research Laboratories, Inc. v. Telegen Corp.*, 133 F.Supp.2d 1170, 1175 (N.D. Cal. 2001). In fact, “[t]he normal procedure for resolving inventorship contests is through an interference proceeding in the Patent and Trademark Office (‘PTO’).” *Fordham v. Onesoft Corp.*, No. CIV. A. 00-1078-A, 2001 WL 641759, *3 (E.D. Va. Jan. 24, 2001); *see also Chou v. University of Chicago*, 254 F.3d 1347, 1358 n.2 (Fed. Cir. 2001) (recognizing that, while an alleged inventor has standing to sue to correct inventorship under 35 U.S.C. § 256, “[o]ne other means for a putative inventor to assert her inventorship right is for her to file her own patent application and seek to have the PTO declare an interference in order to establish inventorship.”) These multiple mechanisms allow omitted inventors to secure their rights prior to the patent’s issuance and without resort to federal court litigation. The Court believes it would be inequitable to permit a plaintiff to sit on his rights to those remedies, yet defeat a laches defense by waiting so long to pursue an inventorship claim that the only remaining remedy is one that does not mature until the patent issues.

Indeed, in light of the availability of remedies during the pendency of the patent application, the Court does not believe the word “claim” should be read so narrowly as to encompass only a suit pursuant to 35 U.S.C. § 256. Rather, “claim,” as it is used for purposes of determining the relevant period of delay, is more properly viewed as a “claim” of *inventorship*. Thus, the laches period of delay may begin when a plaintiff knew or should have known that the defendant filed a patent application covering his alleged inventive contributions and failed to name him as an inventor, regardless of whether such notice occurred prior to the patent’s issuance.

A. Period of Delay

“[T]he period of delay is measured from when the claimant had actual notice of the claim or would have reasonably been expected to inquire about the subject matter.” Thus, the Court must analyze when Hor and Meng knew or should have known of the existence of the patents-in-suit and the fact of their omission as inventors.

Hor and Meng both assert that they learned for the first time that they were not included as inventors on the patents-in-suit in 2006. Chu argues that, although Hor and Meng may contend they lacked actual notice until their 2006 meeting with UH officials, they possessed sufficient facts long before that meeting which triggered a duty of inquiry.

The evidence shows that both Hor and Meng knew by 1990, at the latest, that patent applications were filed covering inventions which they now claim to have conceived. Thus, the critical question is when Meng and Hor had actual notice of their omission as inventors or would have reasonably been expected to inquire about the inventorship of those patent applications.

The evidence suggests that Hor and Meng knew in roughly 1987 or 1988 that patent applications were being filed that included claims to which they now allege they made inventive contributions. In the 1987 or 1988 meeting with Cox, he informed Meng and Hor that he believed they were not inventors, but merely a “pair of hands.” During that same time period, both Hor and Meng admit to reading Chu’s 1987 publications, which reference Chu as the sole inventor of the first of the patent applications that ultimately resulted in the patents-in-suit.

In addition, Meng was involved in at least two of the interference proceedings that took place in the late 1980s and early 1990s. She executed declarations in the proceedings and had her deposition taken at least once. As recited in Part I, *supra*, during the Wu Interference Meng testified, “I remember I had saw (sic) one patent application, but I’m not sure was end the 86 (sic), but I couldn’t remember exactly.” Meng also submitted a declaration in the 1989 *Qadri v.*

Chu Interference in which she stated, “I have reviewed and am familiar with the contents of United States Application Serial No. 32,041 filed March 26, 1987 by C.W. Chu (hereafter the “Chu application).” The cover page and first page of the patent applications list Chu as the sole inventor. In one of Meng’s declarations, she also describes experiments she conducted to replicate two of the patent’s Examples contained in the body of the patent application. Additionally, Cox sent Meng a five-page fax in 1991 containing the abstracts of applications for the patents-in-suit, which clearly listed Chu as the sole inventor.

Although Meng denies actual knowledge of the information contained in the patent applications, she never explains how she could have seen them and/or the abstracts Cox sent her without noticing the absence of her name. Knowledge of Meng’s omission from the patent applications can be imputed to her, notwithstanding her denial. In *Expert Microsystems, Inc. v. University of Chicago*, the alleged inventor uncovered the relevant patents during a prior art search and purchased and printed copies of them. Although he claimed to only have seen the front page and did not review the patents’ content, the court held:

Plaintiff was sufficiently put on notice of his potential inventorship claims by reading the first page of the patents. ‘The Supreme Court has consistently imputed to parties who failed to examine readily available information the knowledge contained in it and the results of inquiries that the knowledge would have motivated a reasonable man to conduct.’

No. CIV. 2:09-586 WBS JFM, 2010 WL 1407981, at *4 (E.D. Cal. Apr. 2, 2010). Like the alleged inventor in *Expert Microsystems*, Meng, at the very least, reviewed the first page of the patents. In this case, even the first page of the application was sufficient to put Meng on notice that she was not an inventor. Thus, notwithstanding her denial of actual knowledge of her omission as inventor, Meng should have known of her claim by at least the early 1990s when she

admitted reviewing the relevant patent applications and/or abstracts in which her name was omitted as an inventor.

Even if Meng had not actually seen the patent applications, she had a duty to inquire about her status given the other information available to her. Indeed, she received a clear indication that Cox did not consider her an inventor, and she participated in at least two intervention proceedings in which she understood the inventorship of the patents-in-suit was at issue, yet Meng never once asked Cox or Chu, or any other UH official whether she was an inventor. A reasonable person in Meng's position, especially one who participated in defending others' claims to inventorship of the patents, should have inquired about her own status. Of course, Meng "is chargeable with such knowledge as [s]he might have obtained upon inquiry, provided the facts already known by [her] were such as to put upon a [person] of ordinary intelligence the duty of inquiry." *Advanced Cardiovascular Sys.*, 988 F.2d at 1162. The facts known to Meng surely put upon her a duty to inquire about the subject of inventorship.

Hor was also present at the 1987 meeting where Cox expressed his opinion that Hor and Meng were not inventors of the patents-in-suit. Cox's judgment was so upsetting to Hor that he allegedly left the room in anger. Hor claims Chu assured Hor that he would attempt to "straighten things out" with Cox, yet Hor never followed up with Chu or Cox, or any other UH official, to discover whether his name was included. Hor had a subsequent meeting with UH's counsel during the Wu Interference, at a time in which Hor understood that other parties were contesting inventorship of the patents-in-suit. Despite signing a declaration, which was submitted in support of UH's claim, Hor never asked whether *he* was a named inventor on the patent. Although there is less evidence indicating Hor may have had *actual* knowledge of his omission as inventor on the applications for the patents-in-suit, like Meng, the "facts already

known by him were such as to put upon a man of ordinary intelligence the duty of inquiry.” There is no question that given the information Hor possessed, any reasonable person would have taken the simple step of confirming his inventor status with Cox or Chu.

B. Rebuttal of Laches Presumption

Having found that Meng and Hor should have known of their lack of inventorship status by the early 1990s at the latest, the six-year presumption applies. Indeed, Hor and Meng waited nearly twenty years before asking UH officials about the inventorship of the patents-in-suit. Hor waited two more years before filing this lawsuit, and Meng did not intervene until four years after she purportedly acquired actual notice of her omission as inventor. Because the presumption applies, the two facts of unreasonable delay and material are inferred, absent rebuttal evidence. Hor and Meng, however, can rebut the presumption of laches “by offering evidence to show an excuse for the delay or that the delay was reasonable” or by offering evidence “sufficient to place the matters of [evidentiary] prejudice and economic prejudice genuinely in issue.” *Serdarevic*, 532 F.3d at 1359-1360 (quoting *Aukerman*, F.2d at 1038) (internal quotations omitted).

1. Reasonable or Excusable Delay

To excuse her delay, Meng suggests that it was caused, in part, because she was from China, and as a result, was ignorant of American law and the patent system. She also makes much of the fact that, at times, Chu referred to the patents-in-suit as “our” patents. Additionally, she asserts that she reasonably believed she was an inventor because she received a sum of money from UH shortly after the patent applications were filed. Meng admits, however, that no one ever told her she was receiving the funds because she was an inventor of the patents-in-suit. Indeed, at no time did anyone ever tell Meng that she was an inventor. Meng also makes no

attempt to rebut the evidence indicating that she actually saw the patent applications in which she was clearly not listed as an inventor.

Although Meng may not have understood the patent law system, she had direct access to UH in-house and outside counsel, and could have, as she did in 2006, quickly confirmed that she was not named an inventor. Given the strong indications she received that she was not an inventor, the fact that, in casual conversation, Chu referred to the patents as “ours,” and that she received a sum of money from UH, is insufficient to rebut the presumption that her approximately twenty year delay was reasonable. Her “failure to investigate [her] potential claim after [she] saw information that warranted further inquiry . . . is unreasonable and therefore insufficient to absolve [her] of knowledge . . . for the purposes of laches.” *Expert Microsystems*, 2010 WL 1407981, at *4.

Hor argues that his delay was not unreasonable because Chu told him that he would speak to Cox about his “pair of hands” comment. It was simply not reasonable, however, for Hor to have relied for twenty years on Chu’s assurances that he would try to “straighten things out” with Cox. Indeed, even if Hor believed that Chu would, as promised, attempt to convince Cox that Hor deserved to be an inventor, there was absolutely no guarantee Chu would be successful. There is no doubt that any reasonable person would have followed up on a conversation of such consequence.

Additionally, Hor argues that it would have been futile to bring his claim to Chu’s or UH’s attention earlier, given their negative responses when he raised it in 2006. He claims that both Chu and UH would have had to effectively consent to his claim of inventorship in order to secure correction and that, given their resistance to his grievance in 2006, they would not have agreed. Although consent may be necessary under the provisions Hor cites, as discussed *supra*,

there were alternatives available to Hor had he asserted a claim to inventorship when he first should have known he was omitted. Thus, UH's and Chu's resistance to Hor's claim in 2006 does not excuse Hor's significant delay taking action to correct inventorship.

2. Prejudice

“Material prejudice . . . may be either economic or evidentiary. Evidentiary, or ‘defense’ prejudice, may arise by reason of a defendant’s inability to present a full and fair defense on the merits due to the loss of records, the death of a witness, or the unreliability of memories of long past events, thereby undermining the court’s ability to judge the facts. . . . Economic prejudice may arise where a defendant and possibly others will suffer the loss of monetary investments or incur damages which likely would have been prevented by an earlier suit.” *Serdarevic*, 532 F.3d at 1360 (quoting *Aukerman*, 960 F.2d at 1033) (internal quotations omitted).

In this case, twenty-three years have passed since the events surrounding the relevant inventions. Since that time, Peter Huang, one of the graduate students who worked in Chu's laboratory with Chu, Hor, and Meng, has died. Dr. Hazen of the Geophysical Laboratory who carried out the analysis of the UH research group's Y-B-C-O samples responded to a request for deposition stating, “any details of what happened during February of 1987—especially the exact days and times of our work—is completely lost from my memory.” (Hazen email to Hewitt, Jun. 11, 2010.) Moreover, the parties themselves suffer from dimming memories. Chu, Hor, and Meng have all experienced difficulty in recalling the timing and content of important events surrounding the inventions, which is unsurprising given the significant passage of time.

In *Frugoli*, the court found that a delay from 1994 to the date the suit was filed in 2002 caused evidentiary prejudice, noting that “[r]ecalling events from the 1994-1995 time-frame would be difficult for any percipient witness.” 74 U.S.P.Q.2d at 1721. Similarly, the *Serdarevic*

court found that the alleged inventor failed to meet her burden to rebut the presumption of evidentiary prejudice, in part, because there was “cumulative and inherent prejudice from the dimming memories of all the participants, including Serdarevic herself.” 532 F.3d at 1360. In that case, roughly nineteen years had passed between the issuance of the first relevant patent and the time the plaintiff brought her lawsuit. *Id.* at 1356.

Meng argues that, because the parties have given almost 1,300 pages of deposition testimony and Meng’s laboratory notebook remains available as evidence, there has been no evidentiary prejudice. Meng’s focus on the quantity of deposition testimony, however, is misplaced. As Chu points out, there are several key issues with regard to which the parties’ memories have faded. Moreover, although Meng’s lab notebook provides some assistance in determining the timing of certain events and the identity of the scientists who performed certain experiments, it is of little help in identifying the *source* of the inventive conceptions, the ultimate inquiry in this case. Not only have Hor and Meng failed to rebut the presumption of prejudice, but the Court is convinced that its ability judge the facts has been significantly undermined by the passage of more than twenty years.

C. Unclean Hands Claims

Both Meng and Hor have raised the doctrine of unclean hands, which if proven, could defeat Chu’s laches defense. Under the unclean hands doctrine, “[e]ven if unable to overcome the presumption, a [plaintiff] may be able to preclude application of the laches defense with proof that the [defendant] was itself guilty of misdeeds towards the [plaintiff].” *Aukerman*, 960 F.2d at 1038. To succeed in an unclean hands claim, a plaintiff is required to show that the defendant has “engaged in particularly egregious conduct which would change the equities significantly in plaintiff’s favor.” *Id.* at 1033 (citing *Bott v. Four Star Corp.*, 807 F.2d 1567,

1576 (Fed. Cir. 1986)). In the inventorship context, “a plaintiff relying on the unclean hands doctrine to defeat a defense of laches must show not only that the defendant engaged in misconduct, but moreover that the defendant’s misconduct was responsible for the plaintiff’s delay in bringing suit.” *Sedarevic*, 532 F.3d at 1361.

Chu has moved to dismiss Hor and Meng’s unclean hands claims under Federal Rule of Civil Procedure 12(b)(6), or in the alternative, for summary judgment. Chu first argues that Rule 9(b) requires that unclean hands allegations sounding in fraud to be plead with particularity. A charge of fraud should be stricken from a pleading where “it is clear that, under no circumstances, could proof, conforming to the strict requirements provided in the fraud charges, be introduced under the pleadings, which would probably convince the trier of the facts that fraud had in fact been perpetrated.” *Massey-Ferguson, Inc. v. Bent Equip. Co.*, 283 F.2d 12, 15 (5th Cir. 1960). Obviously, the threshold question is whether Hor and Meng’s unclean hands claims, in fact, allege fraudulent conduct on part of the defendant. Chu’s motion and reply, however, fail to adequately explain the basis for his contention that Meng’s unclean hands claim sounds in fraud. Indeed, as discussed below, Meng essentially argues that Chu’s counsel engaged in misconduct by failing to advise her properly during the Wu Interference, but it is unclear whether Meng alleges that this misconduct amounted to fraud. Thus, the Court declines to analyze whether Hor and Meng have met Rule 9(b) pleading standards.

Alternatively, Chu argues that Hor and Meng have failed to raise a genuine issue of material fact as to the required elements for unclean hands. Meng argues that Chu is guilty of unclean hands because Chu’s counsel, Cox, “set up Meng-particularly through her declarations-for the argument that she was acting as a ‘pair of hands’ because that argument benefitted Chu and UH in the interference, possibly at her expense.” (Meng Resp. at 33.) Thus, Meng does not

allege that *Chu* engaged in misconduct. Rather she claims that UH's counsel, Cox, engaged in egregious conduct by failing to inform her that she was not an inventor on the patent application and that Wu argued the patent was invalid for failure to name Wu and, possibly, Meng, as inventors. Hor, for his part, did not respond to Chu's motion. Thus, the Court is unaware of the egregious conduct in which Hor alleges Chu engaged.

Although Meng may have raised a genuine issue of material fact as to whether Cox failed to tell her she was not named as an inventor or that Wu alleged she should have been included, she has not explained why she believes Cox's omissions can be attributed to Chu. She also fails to demonstrate that Cox's actions amounted to egregious conduct or that his actions are responsible for her long delay in bringing suit.

Indeed, Meng fails to cite authority indicating that the conduct of someone other than the defendant may suffice for purposes of making out a successful unclean hands claim. In arguing that *Cox* engaged in misconduct, Meng alleges that he violated Texas Disciplinary Rules of Professional Conduct 1.06(b)(2), 1.12(e), and 4.03 by not advising Meng that her interests were potentially at issue in the proceeding. The three sections Meng cites, however, do not actually stand for the proposition that Cox had a duty to inform Meng, an unrepresented witness, of Wu's allegations. Indeed, the most applicable of the three rules, 4.03, states:

In dealing on behalf of a client with a person who is not represented by counsel, a lawyer shall not state or imply that the lawyer is disinterested. When the lawyer knows or reasonably should know that the unrepresented person misunderstands the lawyer's role in the matter, the lawyer shall make reasonable efforts to correct the misunderstanding.

Meng has not alleged that Cox stated or implied that he was disinterested in the matter. In fact, she admits that she understood at all relevant times that Cox was UH's lawyer, not her own. As long as Cox advised Meng that he represented UH's interests in the proceeding, it does

not appear Cox violated the rules she cites. Further, prior to the start of the Wu Interference, Cox made it clear that, based on the information Meng provided, in his judgment, she was simply a pair of hands and not an inventor. By the time the Wu Interference began, Meng had provided Cox with no information inconsistent with his belief. She then attested to facts that confirmed to Cox that she was indeed not a source of inventive contributions. Under these circumstances, the Court believes there is no question that Cox's failure to affirmatively advise Meng of Wu's interference claims does not amount to egregious conduct.

Even if Cox had engaged in misconduct, the Court is not persuaded that his failure to inform Meng of Wu's allegations led to her delay in correcting inventorship. Of course, the Court has already determined that Meng should have known that she was not an inventor based on the information available to her at the time. Thus, Meng's own lack of diligence is responsible for her delay in filing suit, not Cox's failure to confirm that which she should have known already. Moreover, it is unclear what Meng claims she would have done differently had Cox advised her of Wu's allegations. Indeed, the Court is troubled by the implication that she would not have sworn to what she now claims were lies, had she known they harmed her own claims to inventorship. In conclusion, Meng's allegations against Cox do not rise to the level of egregious conduct that would change the equities significantly in her favor.

D. Equitable Estoppel

Relatedly, although not raised by Chu, the Court is convinced that, in addition to laches, the doctrine of equitable estoppel applies to bar Hor's and Meng's claims of inventorship. "Equitable estoppel to assert a claim is another defense addressed to the sound discretion of the trial court." *Aukerman*, 960 F.2d 1041. Where equitable estoppel is established, all relief on a claim may be barred." *Id.* The defense generally has three important elements: 1) the actor, who

usually must have knowledge of the true facts, communicates something in a misleading way, either by words, conduct or silence, 2) the other relies upon that communication, and 3) the other would be harmed materially if the actor is later permitted to assert any claim inconsistent with his earlier conduct. *Id.*

The first element of equitable estoppel concerns the statements or conduct of the alleged co-inventor, which must “communicate something in a misleading way.” *Id.* at 1042. In this case, Meng and Hor both claim they were untruthful during the 1987 or 1988 meeting with Cox in which they asserted that they did not remember who first conceived of the Yttrium substitution. In addition, Meng claims that she was again dishonest during the Wu Interference when she testified that it was Chu who communicated the Yttrium substitution idea to her. She also now recants her 1990 and 1993 statements in which she stated that she was working pursuant to Chu’s direction when she made the rare earth superconductor discoveries that now, in part, form the basis of her inventorship claim.

In naming Chu as the sole inventor, Chu and UH’s legal counsel relied on Hor’s alleged lack of recollection and Meng’s repeated representations that Chu conceived of the Yttrium substitution. They also relied on Meng’s statements that she worked pursuant to Chu’s direction in conducting the rare earth element substitution experiments. Had Chu and UH’s counsel known at the time that Meng and Hor believed that they actually conceived of multiple inventions covered by the patents-in-suit, they could have investigated the scientists’ claims over twenty years ago when the parties’ memories were fresh. If UH determined their claims had merit, it could have included them as inventors on the initial applications or petitioned to correct inventorship while the patents were still pending. Even if UH had deemed them non-inventors, Hor and Meng could have elected to pursue one of the previously discussed pre-issuance

remedies. Hor and Meng, however, admit to misleading Chu and UH into believing their participation in the discoveries did not rise to the level of inventorship. As explained *supra*, by changing their stories and bringing claims to inventorship more than twenty years later, Chu is greatly prejudiced in defending his position as the sole inventor. As such, the Court also finds Hor's and Meng's claims to inventorship are alternatively barred by the doctrine of equitable estoppel.

IV. CONCLUSION

Hor and Meng unreasonably delayed in taking action to correct the inventorship of the patents-in-suit from the time they knew or should have known of their claims. The significant passage of time has caused Chu prejudice in defending his position as the sole inventor. The actions of UH's counsel during the Wu Interference do not sufficiently change the equities in Hor and Meng's favor. As such, Chu's Motion for Summary Judgment on the Inventorship Claims of Pei-Hreng Hor and Ruling Meng Based on Laches is **GRANTED**. Additionally, Defendant's Motions to Dismiss or in the Alternative for Summary Judgment Upon Intervenor Meng's and Plaintiff Hor's Unclean Hand Defenses are **GRANTED**.

IT IS SO ORDERED.

SIGNED at Houston, Texas, on this the 20th day of January, 2011.

A handwritten signature in black ink, appearing to read "Keith P. Ellison", written over a horizontal line.

KEITH P. ELLISON
UNITED STATES DISTRICT JUDGE